PROCEEDINGS OF THE
ROYAL ENTOMOLOGICAL SOCIETY
OF LONDON

SERIES C. JOURNAL OF MEETINGS

Volume 20. No. 10, 1955

ORDINARY MEETING

Wednesday, 18th January, 1956, at 5.30 p.m.

AGENDA

1. Confirmation of the Proceedings of the Ordinary Meeting held on 7th December, 1955.

2. Recommendations of candidates for Fellowship. First reading.

3. Recommendations of candidates for Fellowship. Second reading.

4. Announcement of election of new Fellows.

5. Additions to the Library. [See p. 55.]

6. Nomination of Officers and Council for 1956.

7. Admission of Fellows.

8. Exhibits.

Fellows are particularly requested to bring suitable exhibits to the Meeting even though it may not be possible to announce their intention to do so beforehand.

> *Note.*—To avoid congestion in the Library and to enable exhibits to be displayed to greater advantage, a table has been placed in the meeting-room for this purpose. Fellows are asked to place their exhibits on this table, with a suitable explanatory note, as soon as possible, on the afternoon of the meeting, so that they are available for inspection there before the meeting opens.

9. Communications.

Mr. E. C. Zimmerman.

Amazonian insects in colour.

[ABSTRACT.]

A series of coloured photographs (Kodachrome slides) of Amazonian Insects will be shown on behalf of Mr. Edward S. Ross, Curator of Insects, California Academy of Sciences, San Francisco. The photographs were taken from life by Dr. Ross, using the electronic-flash technique, during a recent expedition to Eastern Peru. The electronic-flash in combination with the reflex camera and colour film affords a relatively new and extremely useful method of recording various features of natural history from life. Some equipment similar to that used on the expedition will be displayed and demonstrated.

Pictures of many kinds of insects will be shown, including butterflies, Orthoptera, Hemiptera, Hymenoptera, etc., and a number of photographs demonstrating remarkable cases of mimicry. Most of the pictures are the first of their kind ever taken, all are of living insects, and many were obtained only after lengthy and skilful stalking in the jungle.

TEA will be served in the Library before the meeting.

NOTICES.

Tenth International Congress of Entomology,

Montreal, 17th–25th, August, 1956.

The Society is in touch with the Canadian Pacific Railway Company regarding travel arrangements for entomologists attending the above Congress. Any Fellow resident in this country who wishes to receive details is asked to write to the Registrar.

Detailed notices of the Congress itself can be obtained from Secretary of the Congress, Mr. J. A. Downes, Division of Entomology, Science Service Building, Ottawa, Canada.

Time of Ordinary Meetings.

It has been suggested that the present practice of holding the Society's Ordinary Meetings at 5.30 p.m. (preceded by tea at 5.0 p.m.) is not wholly acceptable. Fellows are therefore invited to write to the Secretary stating the time which they would find most convenient.

PROCEEDINGS OF THE ORDINARY MEETING HELD ON 7TH DECEMBER, 1955.

Dr. W. J. HALL, C.M.G., M.C., President, in the Chair.

Present, 95 Fellows and 19 Visitors.

The minutes of the Ordinary Meeting held on 2nd November were confirmed and signed by the President.

The names of the following candidates for election were read for the first time: Dr. Shujaatul Akbar, M.Sc.; Mr. Philip Blasdale, Mr. Michael James Delany; Mr. Roy Miller Harfield, B.Sc.; Mr. Gordon William Heath, B.Sc.; Mr. Eric Thomas Hurlock, B.Sc.; Mr. Kuttamathiathu Joseph Joseph, M.Sc.; Mr. Graham John Rose, B.Sc.; Mr. Santokh Singh; and Mr. Gerald Webbe.

For the second time (taken as read): Dr. Neville Lawn Birkett, M.B., Ch.B.; Mr. Michael Edwin Glyn Evans, B.Sc.; Mr. Malvern Basil Georgala, M.Sc.; Mr. Arnold Hitchon, B.Sc.; Dr. Richard William Hornabrook, M.R.A.C.P., M.B., Ch.B.; Mr. Ian A. D. Robertson, B.Sc.

The Secretary read the names of the following newly elected Fellows of the Society: Mr. Victor Ammah-Attoh, c/o K. Ammah-Attoh, Box 680, Accra, Gold Coast; Mr. R. Mohammad Zainal Arif, Taman Argo Wilis No. 8, Bondowoso, Eastern Java, Indonesia; Mr. Onkar Singh Bindra, B.Sc., c/o Government of Madhya Bharat, Gwalior, India; Mr. Donald Alfred Chant, M.A., East Malling Research Station, East Malling, Nr. Maidstone, Kent; Dr. Evan Elias Edwards, D.Sc., University College of the Gold Coast, Achimota, Gold Coast; Dr. Helmut Fritz van Emden, B.Sc., 20 Wilton Grove, Wimbledon, London, S.W.19; Mr. Robert Hammond, 2 Talma Gardens, Twickenham, Surrey; Miss Christine Maria Felicitas von Hayek, Department of Entomology, British Museum (Natural History), Cromwell Road, London, S.W.7; Mr. Manchar Lal Jerath, M.Sc., Entomology Department, Oregon State College, Corvallis, Oregon, U.S.A.; Mr. Hirendra lal Kundu, M.Sc., c/o Imperial College Field Station, Silwood Park, Sunninghill, Berks.; Mr. Trevor Lewis, B.Sc., c/o Imperial College Field Station, Silwood Park, Sunninghill, Berks.; Dr. Sami Riad Abdel Malek, Department of Zoology, Faculty of Science, Moharram Bey, Alexandria, Egypt; Mr. Sarveshwar Dayal Mathur, Bhagat Niwas, Lothian Road, Jaipur, Rajasthan, India; Mr. P. R. Parameswaran Pillai, c/o S. India Cashewnut Manufacturers' Association, Quilon, S. India; Mr. Ralph Owen Rye, B.Sc., 70 Carleton Road, Tufnell Park, London, N.7; Mr. Rajendra Bahadur Singh, M.Sc., Extension Training Centre, Nowgong, Vindhya Pradesh, India; Miss Joan Gwyneth Thomas, Royal Holloway College, Englefield Green, Surrey; Mr. Gerald Vincent Weerawardane, Division of Entomology, Department of Agriculture, Peradeniya, Ceylon; Mr. Walter Wilkinson, Whinmoor, Highfield Avenue, Goldthorpe, Nr. Rotherham, Yorks.; Mr. Geoffrey Harvey Wotton Wood, Cherry Down, Hottsfield, Hartley, Nr. Dartford, Kent.

Thanks were voted to donors of gifts to the Library since the last meeting.

The Secretary read for the first time the following names of Fellows nominated to serve as officers and Council for 1956:

President: Dr. W. J. Hall, C.M.G., M.C.
Treasurer: Dr. N. E. Hickin.
Secretary: Mr. E. B. Britton.
Editor: Mr. J. Balfour-Browne.

Other Members of Council :

Mr. R. F. Bretherton, C.B.
Mr. Paul Freeman
Mr. W. V. Harris
Mr. T. G. Howarth
Dr. H. E. Hinton
Dr. H. B. N. Hynes.
Miss D. J. Jackson.
Mr. R. W. Lloyd
Dr. K. Mellanby, C.B.E.
Mr. W. H. Potts
Mr. H. L. G. Stroyan
Mr. F. T. Vallins
Mr. H. B. Williams, Q.C.

Alternative nominations, supported by four properly qualified Fellows of the Society, should reach the Secretary before the meeting to be held on 18th January, 1956.

Dr. C. J. Banks, Mr. W. E. Collinson, Miss C. M. F. von Hayek, Mrs. M. Prosser, Mr. R. W. J. Uffen and Mr. W. Wilkinson signed the Obligation Book and were admitted Fellows of the Society.

Presentation of Jubilee Volume to Dr. Karl Jordan.

The President said :

" Many of you will remember that, in Council's Report for 1954, reference was made to the fact that a special volume of the Society's *Transactions* was to be published in 1955 in honour of Dr. Karl Jordan.

By the happiest of coincidences, the date of our meeting today coincides with the date of Dr. Jordan's 94th birthday and we are delighted that he has been able to come and be with us this evening because it gives us the opportunity not only of presenting a copy of the volume to him but also of extending to him our warmest good wishes on this his 94th birthday.

This is, I think, an unique occasion in the history of the Society ; unique because it is the first time we have ever honoured one of our Fellows in this way. Dr. Jordan has, of course, been the recipient of many honours in his day but it is particularly fitting that this Society should honour an entomologist of such eminence. Apart from being one of our most distinguished Honorary Fellows, he has been a fellow for over 60 years and a Past President and Vice-President.

I would remind you that Dr. Jordan was an established authority in the entomological world before most of us were born. He has been publishing scientific papers continuously over the past 70 years and that is surely a record that can hardly, if ever, have been surpassed. But to retain his tremendous enthusiasm for the subject and for his many and varied interests and to be still actively engaged in research work at the age of 94 can surely never have been surpassed. I cannot help wondering whether there may not be some correlation between a study of the Siphonaptera and a very active life.

The volume that we are presenting to him today contains a series of essays covering the many facets of his activities. You will find these of absorbing interest and they will make you realise, if you have not already done so, that no living man has contributed more to the advancement of the science of entomology than Dr. Jordan. He has always been years ahead of his time and in his writings and through his contacts he has exerted an influence on the development of the new systematics and on evolutionary thought that cannot be overestimated.

Next year the Tenth International Entomological Congress is to be held in Montreal. It was 45 years ago that Dr. Jordan founded these Congresses and it was due to his great foresight and energy that they came into being. It was his wise guidance and counsel in the early days that enabled the difficulties in launching such a venture to be overcome. These Congresses have come to be recognised as of incalculable value in bringing together entomologists from all countries and they constitute a remarkable tribute to Dr. Jordan's great initiative.

Arising from his life long studies of the Siphonaptera, the Anthribidae and the Lepidoptera, Dr. Jordan has been an outstanding contributor in the field of Zoological Nomenclature. His work as President of the Commission for Zoological Nomenclature, securing international co-operation at a time when political discords were not unknown, will ever be remembered.

The project to publish a volume in his honour was initiated by Mr. Clench of the Carnegie Museum, Pittsburgh, who secured the interest of friends of Dr. Jordan in the U.S.A., Canada and this country and it was with pleasure that the Society agreed to assume responsibility for the publication. The volume consists of just over 400 pages and contains a biographical sketch, short appreciations, seven essays on his activities, a bibliography of over 460 papers, and, in addition, scientific contributions from 20 entomologists from several countries. It is indeed an indication of the great regard, I might almost say the unparalleled regard, in which Dr. Jordan is held nationally and internationally.

It is a very great privilege that we this evening are able to honour one who is not only the master entomologist but a great personality. Many of us here tonight, and countless others who are not, have been vastly stimulated or helped by contact, either personally or by correspondence, with him and I feel it is a great privilege for me, on behalf of the Society, to extend our warmest birthday greetings to him and to invite him to accept a copy of this volume."

Dr. Jordan then spoke expressing his great appreciation of the publication of a volume in his honour and thanking the meeting for its good wishes.

The Honorary Secretary then read the following letters from Mr. Harry K. Clench, of the Carnegie Museum, Pittsburgh, and Dr. E. G. Munroe, of Ottawa. He said that Mr. Clench had been the originator of the proposal to publish a volume in honour of Dr. Jordan and in this he had been supported by Dr. Munroe.

Carnegie Museum,
Pittsburgh, 13,
Pennsylvania, U.S.A.

30*th November*, 1955.

Dear Dr. Jordan,

Scientific work, in whatever field it is done, may be divided conveniently into two sorts: fact-finding and idea-making; and, of course, scientists themselves may therefore be grouped into the fact-finders and the idea-makers. The one gathers the wood, the other sets the fire; and in a dispassionate view each is really quite as important to science as the other. Yet, because wood-gathering requires little more than proper instruction and a modicum of horse-sense, while setting the fire demands the divine gift of a match, we not unjustly admire this more than the other.

Now, most of the fact-finders cannot produce new ideas ; and the idea-makers are often reluctant to search for facts. You, however, have assumed both roles, and perform each nobly. Your systematic and descriptive work is always done thoroughly and with the needs and questions of other students constantly in mind ; but you do not stop there. You consistently treat each fact as a question, asking its reason for being and its significance in relation to other facts—and then proceed (and herein lies the divine spark) to synthesize ideas from these facts, putting them to work. As you have stated it, " [These] are the facts before us that ask for an enquiry into their meaning ", and your enquiries are both numerous and profound.

To these rare professional qualities you have added many warm personal attributes, with the result that you have a host of admirers and well-wishers scattered far and wide over the globe—sincere friends of yours even though many cannot, to their regret, claim personal acquaintance with you. This was abundantly demonstrated when the idea of a Jordan Jubilee Volume was still new. Invitations to fellow biologists for contributions to the Volume brought an immediate, enthusiastic and unanimous response that was eloquent testimony of the high regard for you that we all cherish.

One of your most appealing personal traits is a sincere modesty, so I shall not prolong this eulogy much more, though I admit that I am only warming to my subject and could happily go on for many pages.

Please accept the Jubilee Volume as a tangible, though inadequate, symbol of the great esteem and admiration we all feel toward you. I hope that it helps to make this, your ninety-fourth, a memorable birthday for you. May you long continue to share with us the wisdom of your many years and the fruits of your genius.

With sincere wishes for your good health and good fortune, I am

Your devoted disciple,

(Signed) HARRY K. CLENCH.

Department of Agriculture,
Ottawa,
Canada.
29th November, 1955

My dear Dr. Jordan,

It was a very great pleasure to all of us here to learn that the jubilee volume that has been prepared in your honour will be presented to you by the President of the Royal Entomological Society at a meeting of the Society that is to be held on your birthday.

You must surely be aware of the debt, both scientific and personal, that is owed to you by so many entomologists and zoologists in so many different countries and so many different fields. The volume is a tangible token, but proportionally only a small one, of the esteem and affection with which you are regarded everywhere.

My one regret is that I have been unable to be present at this memorable scene, or to express my respect and gratitude to you in person. However, my feelings are none the less sincere because conveyed from a distance. I hope, therefore, that I may add my voice to the many and offer my congratulations and very best wishes on your birthday and on the occasion of the presentation.

Sincerely yours,
(Signed) E. G. MUNROE,
Insect Systematics and Biological Control.

The Meeting then proceeded to Item 8, the presentation of Exhibits :

Miss C. Longfield showed a male and female of *Agrion* (= *Coenagrion*) *freyi* Bilek, a new species of Zygoptera (Coenagriidae), which had been presented to the National Collection by Herr Alois Bilek of Munich, who had taken the species in south-east Bavaria. She alluded to the discovery, the first in Central Europe for a century, and gave briefly the characters distinguishing the species from other species in the genus.

Mr. E. A. J. Duffy exhibited the larva, pupa and adult of *Batocera wyllei* Chevrolat (Col., Lamiidae). He said this species is one of the largest African Cerambycids and attacks living trees of the genera *Aucoumea*, *Guarea* and *Alstonia*. The larval galleries are nearly two inches in diameter and are several feet long. Recently trees have been seen to be riddled with these excavations from the buttress to 150 feet or more up the tree. He drew attention to the strange habit of the fully grown larva which removes a large disc of bark from around the future emergence hole.

Mr. J. Balfour-Browne exhibited some further examples of Myrmeleontidae found forming large aggregations in South Africa and Rhodesia and read extracts from letters from Dr. E. McC. Callan reporting on them.

Mr. R. M. Gambles remarked that he had seen similar aggregations on a small scale in Nigeria.

Baron C. G. M. de Worms exhibited a specimen of *Plusia acuta* Walker captured in Great Britain. He said that on the morning of 6th November, 1955, while clearing his mercury-vapour moth-trap at Horsell, Woking, he noticed, among a number of *Plusia gamma*, another *Plusia* he could not recognise. After careful comparison with the standard series in the Natural History Museum it was found to be an example of *Plusia acuta* Walker. Seitz (*Macrolepidoptera of the World* **15**) mentions that this species is a native of Africa south of the Sahara, where it is reported to be quite a common insect. The only other British record purporting to be this species was obtained at Tunbridge Wells in 1870. Baron de Worms continued that he had recently heard that another collector, working a similar trap near Newbury, also took what is most probably another example of this species on the same night as his own capture, thus pointing to a definite immigration rather than to some form of accidental introduction. It is doubtful if this species has ever been reported from the mainland of Europe.

Baron de Worms also exhibited, on behalf of **Mr. J. L. Messenger,** a specimen of the Poplar Grey moth (*Apatele megacephala* Schiff.) with melanic forewings and hindwings, a form not previously recorded for Britain. It was taken near Weybridge in July 1955.

Miss Vere Temple exhibited water colours painted from life showing the life history of :—

(1) *Arctia caja L.* (Garden Tiger Moth) ; (2) *Pachys strataria* (Oak Beauty Moth) ; (3) *Thecla betulae L.* (Brown Hair Streak Butterfly).

Dr. F. I. van Emden showed a slide and drawings of a larva found by Herr

H. E. Wichmann near Munich at a small spot where *Georyssus crenulatus* Rossi is common. These presumed *Georyssus* larvae have the characters of the Hydrophilidae and, by their nine pairs of free spiracles, ten well-developed abdominal segments, free cerci and widely separated antennal foramina, they are related to the more primitive subfamilies Hydraeninae, Limnebiinae and Helophorinae. The absence of an epicranial suture and ligula, the prognathous head, six ocelli, mandible without a prostheca and molar but with a large retinaculum, the biforous spiracles, etc., separate Helophorinae and *Georyssus* from the other two subfamilies. The small bluntly spine-shaped cerci, membranous asperate tergites (as in Hydrophilinae, etc.), the reduced legs and the long appendage of the second antennal segment define the *Georyssus* larva as a separate subfamily Georyssinae.

Mr. J. Balfour-Browne made the following observations on Dr. van Emden's exhibit:

Mr. Crowson has suggested that *Georyssus* is perhaps related to the Epimetopinae, a small sub-family, usually placed after the Helophorinae, with three genera, one Central and South American, one Indian and one (undescribed) West African.

Superficially the relationship is attractive but he confessed that he found it difficult to accept. *Georyssus* is entirely distinct from any known Hydrophiloid in the structure of the thoracic sterna. The prosternum is entirely unique in the almost vertical prosternal plate and the widely separated coxal insertions are closed in a manner otherwise unknown in the sub-order. The mesosternal plate forms almost the entire ventral face of the mesothorax, both the episternum and epimeron being greatly reduced. The metasternal episternum is either completely fused with the metasternum or has moved on to the pleuron; no suture separating it from the sternum is visible.

To the unique features of the *Georyssus* adult, as contrasting with Hydrophiloidea, should be added the widely separated and almost globular hind coxae which, in the superfamily, are strongly transverse and contiguous.

The mandibles of the adult *Georyssus* are also wholly unlike those of the Hydrophilidae but are, by the presence of a large molar area, apparently adapted to phytophagy.

None of the sternal features of the adult can be accepted as specifically adaptive variations from the Hydrophiloid structure. The Epimetopinae have the same habits and live under the same conditions as the Georyssidae but their sternal structure is essentially Hydrophilid.

The resemblances of the larvae described by Dr. van Emden to the Helophorine larva are close but if this is truly the larva of *Georyssus* the adult structure is so far removed from the Helophorine type as to leave the status of the group almost as much an enigma as ever.

Mr. R. M. Gambles exhibited eggs of *Lestinogomphus africanus* (Fraser). He said that batches of eggs were laid by two captive females in N. Nigeria. The eggs are of interest in that they carry a filament at the posterior pole 40–50 times the length of the egg itself. At the time of laying, this is coiled tightly round the end of the egg, forming a small cap. On contact with the water the filament uncoils.

Such structures have apparently not been described in the Odonata previously, although they are well-known in some genera of Ephemeroptera, where they are considered part of a mechanism for anchoring eggs laid in running water. Many of the young nymphs hatching from these eggs have been observed to remain for a considerable time with the terminal segment caught in the crack in the eggshell, and only extricate themselves with difficulty. It is suggested that this may prevent their being washed away by the current before they have had time to secure a firm foothold.

Eggs sent to England by air-mail have been reared to the second and third instar by Mr. A. E. Gardner. Slides of the larvae were shown and a drawing of the second instar labial mask.

Dr. C. J. Banks exhibited : (1) Three specimens (2♂, 1♀) of *Phalacrotophora fasciata* Fallén (Diptera : Phoridae), a common parasite of pupae of Coccinellidae. The insects had emerged from pupae of *Adalia bipunctata* (L.), which were collected on bean plots at Rothamsted Experimental Station in the summer of 1952. Mr. C. N. Colyer had kindly identified the specimens. This parasite has been recorded from many species of Coccinellidae.

(2) An unidentified Tachinid which emerged from an adult *Adalia 10-punctata* (L.) found on nettles at Rothamsted in May 1954. There is no record in van Emden's list of Dipterous parasites of Coleoptera (1950, *Ent. mon. Mag.* **86** : 182–206) of such a parasite of Coccinellidae.

Mr. G. A. Brett exhibited : (1) *Spilopsyllus cuniculi* Dale, the common Rabbit Flea in this country. (2) *Echidnophaga myrmecobii*, the Marsupial Stick-tight Flea from Australia, where it has taken to feeding on rabbits. (3) A rabbit's nest from this country. This is the commonest breeding place for *Spilopsyllus*, where they are often found in large numbers.

Mr. N. R. Phillips exhibited a female specimen of *Dytiscus marginalis* L. taken from a small stream in Essex during September, 1955, which showed abnormal regeneration of the left fore-limb.

According to Megusar (1907)[1], quoted in Wigglesworth (1942, 1954)[2], there is no regeneration of the appendages in Dytiscidae during the larval stages. The wound, or site of amputation, heals over and (normally) a properly organised limb is regenerated at pupation.

Bodenstein (1937, 1941)[3], quoted in Wigglesworth (1954), has shown experimentally that partial amputation of a limb is followed by double regeneration, resulting in triplication of the components distal to the point of injury. In such cases, the regenerated components always conform to Bateson's law, i.e. the plane of the duplicate component is a mirror image of the original limb, and of the triplicate component a mirror image of the duplicate.

In the specimen exhibited, partial severance of the left fore-limb presumably occurred during the larval stage. At pupation, double regeneration took place, the various components being indicated in the diagram exhibited. In the actual specimen, torsion through manipulation of the insect in setting has masked the natural lines of action of the regenerated parts.

Mr. H. Oldroyd exhibited adults and larvae of Tabanidae of the tribe Scepsidini. Flies of this tribe are littoral, with one genus, *Scepsis*, on the coast of Brazil, and the other two, *Adersia* and *Braunsiomyia*, on the eastern seaboard of Africa.

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[1] Megusar, F., 1907. Die Regeneration der Coleopteren. *Arch. EntwMech. Org.* **25** : 148–234.

[2] Wigglesworth, V. B., 1942, *Principles of Insect Physiology*, 2nd Edn. Chap. III, p. 65.
——, 1954, *The Physiology of Insect Metamorphosis*, Chap. 5, pp. 120–122.

[3] Bodenstein, D., 1937, Beintransplantationen an Lepidopterenraupen. IV. Zur Analyse experimentell erzengter Bein-Mehrfachbildungen. *Roux Arch. EntwMech. Organ.* **136** : 745–85.

——, 1941, Investigations on the problem of metamorphosis. VIII. Studies on leg determination in insects. *J. exp. Zool.* **87** : 31–53.

The adults are remarkable for their protective coloration, and for their greatly reduced mouthparts. Nothing is known about the feeding habits of the adults, but larvae have recently been found for the first time by Dr. E. McC. Callan and his colleagues, of the Rhodes University, Grahamstown. Larvae that are presumed to be those of *Adersia oestroides* Karsch occur in damp sand just above high water mark, and a single larva of a different kind, possibly that of *Braunsiomyia cinerea*, has been found in the intertidal zone.

The exhibit included several living larvae that were recently sent by Dr. Callan, and which it is hoped to rear to maturity.

Mr. J. A'Brook exhibited plants of Lucerne (var Provence), from the University Farm, Cambridge, attacked by larvae of *Apion spp.* (*pisi*?). Eggs and all stages of larvae had been found in September and November this year and an initial survey showed about 2.5 shoots per plant of lucerne infected in a lucerne/cocksfoot ley, sown in March 1954. Infection was usually shown by oviposition holes in the stipules of shoot leaves.

Larvae and eggs were also shown.

Mr. H. D. Swain exhibited a number of coloured drawings of British Hemiptera-Heteroptera intended for publication in a work on Hemiptera, by T. R. E. Southwood and D. Leston.

Mr. Philip Hunter-Jones exhibited an albino strain of the Desert Locust, *Schistocerca gregaria* (Forskål), that has appeared and become established at the Anti-Locust Research Centre. Isolated albinos develop the typical green colour of phase *solitaria* and are indistinguishable from the normal strain. The crowded albinos, however, are remarkable in having none of the black (melanin) or pink (insectorubin) pigment in the integument which is typical of phase *gregaria* and consequently are an overall ivory or yellow colour. It is intended to use the albino strain in locust pigment and phase transformation research.

Mr. Dennis Leston exhibited some Hemiptera Heteroptera collected by Dr. J. D. Carthy in the Azores. A total of 43 species of bugs are now known from the islands. 21 are recorded from more than one island : of these, four are cosmopolitan, 14 Palaearctic and three atlantic (Canaries and/or Madeira). 22 species are so far known only from single islands : two cosmopolitan, 15 Palaearctic, three Holarctic and two Ethiopian.

Mr. Trevor Trought showed seven new species (including two new genera) of Lepidoptera from the Hashemite Kingdom of Jordan, collected by himself. These had been given names by Mr. E. P. Wiltshire and Dr. H. G. Amsel.

He also showed mounted specimens of the larvae of other species, two of which were thought not to have been previously described.

Professor G. C. Varley reported on two instances of insects feeding on the sap flowing from plants damaged by biting insects. These were illustrated by colour transparencies of anthomyiid flies, *Polietes albolineata* Fallén feeding on sap from young oak leaves damaged by caterpillars, and a speckled wood butterfly, *Pararge aegeria* (L.) feeding on an apple which had been bitten open by wasps.

Coloured slides were shown to illustrate the curious postures adopted by the full grown larva of the lobster moth, *Stauropus fagi* (L.).

E. B. BRITTON, *Honorary Secretary.*

The next meeting (Annual Meeting) will be held on 1st February at 5.30 p.m.

ADDITIONS TO THE LIBRARY.

Presented.

Carpenter, S. J., and La Casse, W. J. *Mosquitoes of North America (north of Mexico).* 4to. University of California Press, Berkeley & Los Angeles. 1955. [Cambridge University Press.]

Klucze do oznaczania owadów Polski (Keys for the identification of Polish insects.) 8vo. Warsaw. 1954. (In Polish).

Pt. II.—*Collembola,* by J. Stach. 1955.

Pts. II–V.—*Protura, Diplura and Thysanura,* by J. Stach. 1955.

Pt. XIX. fasc. 25.—*Coleoptera, Silphidae,* by M. Mroczkowski. 1955.

Pt. XIX. fasc. 41.—*Coleoptera, Anobiidae,* by J. Dominik. 1955.

Pt. XIX. fasc. 52.—*Coleoptera, Dermestidae,* by M. Mroczkowski. 1954.

Pt. XIX. fasc. 87.—*Coleoptera, Pyrochroidae,* by J. Dominik. 1954.

Pt. XIX. fasc. 99–100. *Coleoptera, Scolytidae & Platypodidae,* by M. Nunberg, 1954. [The Editorial Committee, Polish Academy of Sciences, Warsaw.]

Purchased.

Döring, E. *Zur Morphologie der Schmetterlingseier.* 8vo. Akademie-Verlag, Berlin. 1955.

Gregg, John R. *The Language of taxonomy. An application of symbolic logic to the study fo classificatory systems.* 8vo. Columbia University Press, New York. 1954.

Hoffmann, Adolphe. *Coléoptères Curculionides.* II. 8vo. Paris. 1954. [Faune de France 59.]

Jaeger, E. C. *A Source-book of biological names and terms.* 3rd ed. 8vo. Springfield, Illinois. 1955.

Schmidt, Hans. *Die Termiten.* 8vo. Geest & Portig K.–G., Leipzig. 1955.

Smits van Burgst, C. A. L. *Tunisian Hymenoptera.* Sm. 8vo. The Hague. 1913.

Stichel, Wolfgang. *Illustrierte Bestimmungstabellen der Wanzen.* II *Europa* Hft. 4 & 5. 8vo. Berlin-Hermsdorff. 1955.

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